

Ian Gallagher

📞 (831) 818-9080
✉ iangallagherm@gmail.com
in iangallagherm
🌐 iangallagherm



Education

- 2024–Current **PhD Mathematics**, *University of California, Davis, CA*, 4.0 GPA
Currently enrolled in the PhD program in Mathematics at UC Davis.
Research interests include numerical analysis, PDEs, dynamical systems, and scientific computing.
- 2017–2021 **BS Mathematics**, *California Polytechnic State University, San Luis Obispo*, 3.9 GPA
Graduated Summa Cum Laude along with a computer science minor.
Attended Simple Group, a research seminar with a focus on algebraic topics.
Graduate courses in Field Theory, Algebra, and Real Analysis.

Experience

- Sep 2024–Current **Graduate Teaching Assistant**, *University of California, Davis*
Teaching assistant for undergraduate calculus courses offered by the Department of Mathematics.
Responsibilities include teaching discussion sections, grading, and group calculus tutoring.
- Nov 2023–Apr 2024 **Freeride Ski Coach**, *Palisades Tahoe*
Coached a group of 10-13 year old athletes in the Freeride program at Palisades Tahoe.
- Jul 2021–May 2023 **Software Engineering Consultant**, *Pariveda Solutions*, San Francisco
Built, tested, and deployed new features for next generation customer support platform of a major online hospitality marketplace.
Tasked with improvements to backend service infrastructure and increasing observability and alerting of systems.
Made optimizations to reduce request latency by 20% and request volume by more than 50% for core customer support data.
- 2019–2021 **Software Team Member**, *Cal Poly CubeSat Laboratory*
Software Lead for NASA ER-2 payload designed to record plane's in-flight vibrational profile and interface with custom XCube CPCL payload carrier.
Refactored and updated existing microcontroller analog to digital converter sampling pipeline.
Designed for embedded Linux platforms. Languages Used: C, Python.
- Summer 2020 **Frost Research Scholar**, *Cal Poly Mathematics Department*
Member of pure mathematics student research team lead by Dr. Eric Brussel.
Generalized results about the structure of the quaternions to a generalization of the quaternions.
Classified the embedded commutative sub-algebras, their conjugacy classes, and associated moduli spaces.

Summer 2019 **Frost Research Scholar**, *Cal Poly Mathematics Department*
Implemented theoretical climate models from research papers in Matlab.
Utilized shell scripts to parallelize runs of model over a wide array of input parameters.
Created visuals and statistical tests to investigate link between internal model behavior and external forcing signals.

Technical Skills

Languages Java, Kotlin, Ruby, Python, C, Matlab, JavaScript, TypeScript
Frameworks React, GraphQL, REST
Tools Linux, Bash, Git, Docker, Kubernetes, Buildkite, Datadog, \LaTeX

Awards & Certifications

2021–2024 **Solutions Architect – Associate**, *Amazon Web Services*
Demonstrated the ability to build secure and robust solutions using architectural design principles.

2021 **Robert P. Balles Most Outstanding Senior**, *Cal Poly Mathematics Department*
One of two students selected on the basis of participation in clubs or societies, contribution to the image of the department, and scholastic achievement.

2020 **Accenture Outstanding Junior of the Year**, *Cal Poly Mathematics Department*
Awarded to a single junior in the mathematics major for demonstrating superior leadership skills and the ability to work effectively with peers and faculty.

2019, 2020 **Edward Van Duyne Memorial Scholarship**, *Cal Poly Mathematics Department*
Two time recipient of scholarship intended for high-achieving students in the mathematics major.